

City of Maricopa Signing and Striping Policy December 2005

1.0 General Information

The following publications or their current revisions are to be used in conjunction with the City of Maricopa Signing and Striping Standards for all traffic signing and marking design work.

- Manual on Uniform Traffic Control Devices for Streets and Highways (MUTCD) - USDOT/FHWA
- Signing And Marking - Standard Drawings - ADOT
- ADOT Traffic Control Design Guidelines - ADOT
- Manual Of Approved Signs (MOAS) - ADOT
- Traffic Engineering Policies, Guidelines and Procedures - ADOT
- Uniform Standard Specifications For Public Works Construction - MAG
- Uniform Standard Details For Public Works Construction – MAG
- Roundabouts: An Informational Guide - FHWA
- City of Maricopa Small Area Transportation Plan - Maricopa

2.0 Design Standards

All signing and striping designs are to be in accordance with the MUTCD unless modified by the City as noted below. All pavement markings, sign materials, and construction methods must conform to the ADOT Standard Drawings and Specifications unless otherwise noted. The City Engineer's office must be notified five business days prior to starting any signing or striping work at (520) 568-9098.

2.1 Signing

- a) The City Engineer may require the contractor to adjust signing as necessary.
- b) Sign locations and offsets may be adjusted by the City Engineer to improve visibility.
- c) All Warning, Regulatory and Arterial Street Name Signs must be manufactured of "ASTM D-4956-04 Proposed Type XI Sheeting" (3M DG3 4090 series or equivalent) all other signs must be manufactured with "ASTM D-4956-04 Type IV Sheeting" (3M 3930 Series or equivalent) which will be attached to the standard signage aluminum plates. Sign imaging shall be in compliance with the reflective sheeting manufactures matched component system. Sign imaging shall consist of an acrylic based electronic cuttable film (3M 1170 Series or equivalent) or silk screened (depending on the quantity of signage) with standard highway colors. In addition, if called out on plans, to create a graffiti-protective coating, a protective overlay film 3M 1160 or equivalent shall be used which is designated to comply with the underlying reflective sheeting match component system.

- d) Warranty documents are required and must be submitted prior to job acceptance.
- d) All traffic control signs, except stop signs, must be attached to street light poles if the pole is within 25 feet of the sign location shown on the signing and striping plans.
- e) Speed limit signs (R2-1) are to be installed at four signs per side, per mile.
- f) Stop signs (R1-1) are to be 30 inches by 30 inches, minimum size.
- g) Street name signs in subdivisions must conform to city colors and standards.
- h) Advance street name signs are to be installed at a height of 4 feet to the bottom of sign and placed so they are not obstructed by vegetation. Signs are to be installed in medians whenever possible.
- i) All existing signs temporarily removed by the contractor must be salvaged for reinstallation by the contractor.
- j) All existing signs permanently removed by the contractor must be salvaged and returned to the Public Works Superintendent.

2.2 Striping

- a) The City Engineer may require the contractor to adjust signing as necessary.
- b) All permanent longitudinal pavement striping (centerlines, lane lines, bay lines) must use 60 mil. hot-sprayed or extruded thermoplastic. Reflective glass beads must be applied in accordance with section 704 of ADOT's Standard Specifications for Road and Bridge Construction.
- c) All permanent lateral pavement striping (stop bars, crosswalk lines) must use 90 mil. hot-sprayed or extruded thermoplastic. Reflective glass beads must be applied in accordance with section 704 of ADOT's Standard Specifications for Road and Bridge Construction.
- d) All temporary pavement markings must use reflective traffic paint.
- e) All median noses must be painted yellow with reflective glass beads from the tip of the median back 10 feet.
- f) All raised pavement reflectors must be installed with CRAFCO pavement reflector adhesive, or equivalent.
- g) All conflicting pavement markings must be obliterated by means of water blasting by the contractor.
- h) A sealant approved by the City Engineer must be applied by the contractor to all areas where pavement markings have been obliterated.

3.0 Signing/Striping Plan Layout

3.1 General Requirements

- a) Signing and pavement marking designs should be shown in "plan view" and on the same plan sheet, if practicable.
- b) All plan sheets are to be complete and to scale, no smaller than 1 inch = 40' unless approved by the City Engineer.
- c) Entire length of project is to be shown in plan view. Typical Sections representative of striping and/or signing will not be accepted.
- d) Signing and pavement marking plans need to include all existing signing and pavement markings for a minimum of 300 feet past the limits of construction

- (except those devices that are to be removed), and include adequate transitions and tapers to existing pavement markings to maintain traffic at the design speed.
- e) The City requires a specific title and signature block to be placed in the lower right corner of each sheet. The consultant's title block should be placed adjacent to the city block. The signature block must include the City Engineer.
 - f) Right-of-way lines are to be clearly identified on all plan sheets.
 - g) Plan sheet notes along with any additional project specific notes are to be placed on the lead signing and pavement marking plan sheet.

3.2 Signing

- a) All signs must be graphically depicted in the direction of travel.
- b) All signs must be stationed and referenced to the appropriate MUTCD sign designation with size noted.
- c) Existing or proposed speed limit must be posted to provide adequate approach visibility. Existing or proposed roadway improvements, vegetation, or structures cannot block traffic sign visibility.
- d) All existing signs must be identified to remain, be removed, or be relocated and must be stationed and referenced to the appropriate MUTCD sign designation.
- e) All existing advance or approach signing applicable to the project must be field verified and referenced on the plan sheets, including location and/or station, and proposed status of sign.

3.3 Striping

- a) All existing striping that is to remain must be fully shown (as screened lines or lightly inked pen lines), identified by type and width, and completely dimensioned across roadway.
- b) Raised pavement markers must be graphically shown in plan view and referenced by construction notation.
- c) All new striping must be clearly identified noting color, line width, beginning station, ending station, and intermediate stations at all directional changes.
- d) Striping to be removed needs to be identified as such on the plans.
- e) All striping must be fully dimensioned across roadway and tied to a construction centerline or monument line at each side of an intersection.
- f) All pavement arrows, legends, crosswalks, etc., must be located by station or dimension lines.